AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the claims:

1. (Currently Amended) A method for screening a compound useful for the treatment of proliferative and differentiative disorders comprising contacting a test compound ~~in vitro~~ with a reaction mixture comprising Skp2, p27, and Cdk2 ~~and Cks1~~, wherein a purified or partially purified Cks1 is added to the reaction mixture; and detecting a change in Skp2 binding activity or Skp2 ubiquitin ligase activity, such that if a change in the binding activity or ubiquitin ligase activity of Skp2 is detected, then a compound useful for the treatment of proliferative or differentiative disorders is identified.

2. (Currently Amended) The method of claim 1 wherein the change in ~~Skp2 binding~~ Skp2 binding activity is detected by detecting a change in the binding of Skp2 with either p27 or Cks1.

3. (Currently Amended) The method of Claim ~~2~~ 1 wherein the change in the Skp2 ubiquitin ligase activity is detected by detecting a change in the ubiquitination or degradation of p27 or Cks1.

4-6. (Canceled)

7. (Currently Amended) A method for screening a compound useful for the treatment of proliferative and differentiative disorders comprising:

    (a) contacting a test compound with a reaction mixture containing Skp2, ~~Cks1,~~ and a polypeptide comprising the carboxy terminus of the human p27 chain having the sequence NAGSVEWTPKKPGLRRRQT (SEQ. ID. NO: 91) with or without a phosphothreonine at position 8, wherein a purified or partially purified Cks1 is added to the reaction mixture; and

    (b) detecting a change in the interaction of Skp2 with Cks1 or the polypeptide, such that if a change in the interaction of Skp2 with Cks1 or the polypeptide is

2

detected, then a compound useful for the treatment of proliferative and differentiative disorders is identified.

8. (Previously Presented) The method of Claim 7 wherein the change in the interaction of Skp2 with Cks1 or the polypeptide is detected by detecting a change in the binding of Skp2 to either the polypeptide or Cks1.

9. (Previously Presented) The method of Claim 7 wherein the change in the interaction of Skp2 with Cks1 or the polypeptide is detected by detecting a change in the ubiquitination or degradation of the polypeptide.

10-21. (Canceled)

22. (Previously Presented) The method of claim 1 or 7 wherein said Cks1 is purified from an in vitro translation reaction or recombinant expression system.

23. (Currently Amended) <u>A method for screening a compound useful for the treatment of proliferative and differentiative disorders comprising contacting a test compound *in vitro* with a reaction mixture comprising Skp2, p27, Cdk2 and Cks1, and detecting a change in Skp2 binding to Cks1, such that if a change in Skp2 binding to Cks1 is detected, then a compound useful for the treatment of proliferative or differentiative disorders is identified</u> ~~The method of claim 2 or 8 wherein the change in binding of Skp2 to Cks1 is detected by detecting an increase in the binding of Skp2 to Cks1~~.

24. (Currently Amended) The method of claim <u>23</u> ~~2 or 8~~ wherein ~~the change in binding of Skp2 to Cks1 is detected by detecting~~ a decrease in the binding of Skp2 to Cks1 <u>is detected</u>.

25. (Currently Amended) The method of claim 2 ~~wherein the change in binding of Skp2 and p27 is detected by detecting~~ an increase in the binding of Skp2 to p27 <u>is detected</u>.

26. (Currently Amended) The method of claim 2 ~~wherein the change in binding of Skp2 and p27 is detected by detecting~~ a decrease in the binding of Skp2 to p27 <u>is detected</u>.

3

27. (New) The method of claim 23 wherein an increase in binding of Skp2 to Cks1 is detected.

28. (New) A method for screening a compound useful for the treatment of proliferative and differentiative disorders comprising:

(a) contacting a test compound with a reaction mixture containing Skp2, Cks1, and a polypeptide comprising the carboxy terminus of the human p27 chain having the sequence NAGSVEWTPKKPGLRRRQT (SEQ. ID. NO: 91) with or without a phosphothreonine at position 8; and

(b) detecting a change in the binding of Skp2 to Cks1, such that if a change in the interaction of Skp2 with Cks1 identified, then a compound useful for the treatment of proliferative and differentiative disorders is identified.

29. (New) The method of claim 28 wherein an increase in binding of Skp2 to Cks1 is detected.

30. (New) The method of claim 28 wherein a decrease in binding of Skp2 to Cks1 is detected.

31. (New) A method for screening a compound useful for the treatment of proliferative and differentiative disorders comprising contacting a test compound with a reaction mixture comprising Skp2, p27, Cdk2, and Cks1, and detecting a change in the binding of Skp2 to Cks1, such that if a change in the binding of Skp2 to Cks1 is detected, then a compound useful for the treatment of proliferative or differentiative disorders is identified.

32. (New) The method of claim 31 wherein an increase in binding of Skp2 to Cks1 is detected.

33. (New) The method of claim 31 wherein a decrease in binding of Skp2 to Cks1 is detected.

4